

**Wyoming Department of Environmental Quality
Water Quality Division
WYPDES Program**

STATEMENT OF BASIS
MAJOR MODIFICATION

APPLICANT NAME: Pennaco Energy Inc.

MAILING ADDRESS: 3601 Southern Drive
Gillette, WY 82718

FACILITY LOCATION: LS Draw – LX Bar, which is located in the SWSE, Section 21, the SENW and SWSE, Section 27, the SWNW, NWNW, and SENW, Section 28, and the SENW, Section 29, Township 56 North, Range 75 West, Campbell County. The produced water will be discharged to various named, on-channel reservoirs (class 3B) located on several unnamed, ephemeral tributaries (class 3B) of LX Bar Creek (class 3B), LS Draw proper (class 3B), Bath Draw proper (class 3B), Goodrich Draw proper (class 3B), Wineland Draw proper (class 3B), and a naturally closed topographic depression (a playa lake) (class 3A). One outfall (004) discharges directly (no reservoir containment) to LS Draw (class 3B). Except for the playa lake, the waterbodies listed above are all tributary to the Powder River (class 2ABWW), via LX Bar Creek (class 3B). The permit requires that the produced water being discharged from this facility originate in one or more of the following formations: the Pawnee, Wall, Canyon, and/or Cook coal seams.

NUMBER: WY0039055

The following Statement of Basis only includes information that has changed with this modification. For a complete Statement of Basis, please see previously issued modifications or renewals for this permit.

The following changes are made to this permit as a result of this major modification:

1. *Load limits for total dissolved solids and dissolved sodium are updated to reflect the amount of Pennaco Energy, Inc.'s assimilative capacity that they want allocated to this discharge from outfall 004.*
2. *Add outfall 010.*
3. *Remove outfall 005.*
4. *Remove on-channel containment requirements for outfall 004.*

With the exception of items explicitly delineated in this major modification, all terms and conditions of WY0039055, including Parts II and III of the renewed permit, shall remain unchanged and in full force and effect.

The following Statement of Basis only includes information relevant to this major modification. For a complete Statement of Basis, please see previously issued modifications or renewals for this permit.

B. Facility Description

1. **Outfall Description— 002, 003, 006, 007, 009, and 010 (Option 2)**

For outfalls **002, 003, 006, 007, 009, and 010** the permittee has chosen option 2 of the coal bed methane permitting options. Under permitting option 2, the produced water is immediately discharged to a class 2 or class 3 receiving stream which is eventually tributary to a class 2AB perennial water of the state. The permit establishes effluent limits for the end of pipe, which are protective of all the designated uses defined in *Chapter 1 of Wyoming Water Quality Rules and Regulations*. This may include drinking water, game and non-game fish, fish consumption, recreation, agriculture, wildlife, industry and scenic value. Although irrigation has been identified on LX Bar Creek prior to confluence with the Powder River, changes in the manner in which the irrigation system operates have taken place since this permit was originally drafted. An irrigation diversion has been constructed which allows CBM flows to be diverted around the irrigated acreage. This structure has been constructed with the approval of the sole downstream irrigator, who has agreed that limits protective of irrigation are no longer necessary in CBM permits.

The permittee is required to contain all effluent from outfalls **002, 003, 006, 007, 009, and 010** only in a series of on-channel reservoirs at this facility, unless prior written authorization is granted by the WYPDES program for a reservoir release, in association with use of assimilative capacity credits for the Powder River Basin. In the event that such an authorization for release is granted for this facility, the authorization letter will specify the release volume, duration and individual reservoir(s) covered. In the absence of such written authorization for release, the following containment requirements will apply at the reservoirs: the permittee will be required to contain all produced water within a series of on-channel reservoirs during “dry” operating conditions. The permittee is authorized to release discharge from upstream on-channel reservoirs only. Water released from the upstream reservoirs will be allowed to cascade down to the lowermost on-channel reservoirs, identified as follows: “Loman”, “Wineland”, and “Bath”. This permit prohibits discharge of effluent from the lowermost reservoirs except during periods of time in which natural precipitation causes the lowermost reservoirs to overtop and spill. Intentional or draw-down type releases from the lowermost reservoirs will constitute a violation of this permit. Discharge from the reservoirs is limited by the permit to natural overtopping and shall not extend beyond a 48 hour period following commencement of natural overtopping. It is the responsibility of the permittee to adequately demonstrate the circumstances in which reservoir discharges occurred, if requested to do so by the WYPDES Program.

2. Outfall Description— 004 (Option 2-direct discharge)

Under permitting option 2 without containment the produced water is immediately discharged to a class 2, class 3, and/or class 4 receiving stream which is eventually tributary to a class 2AB perennial water of the state. The permit establishes effluent limits for the end of pipe, which are protective of all the designated uses defined in *Chapter 1 of Wyoming Water Quality Rules and Regulations*. This may include drinking water, game and non-game fish, fish consumption, recreation, agriculture, wildlife, industry and scenic value. Although irrigation has been identified on LX Bar Creek prior to confluence with the Powder River, changes in the manner in which the irrigation system operates have taken place since this permit was originally drafted. An irrigation diversion has been constructed which allows CBM flows to be diverted around the irrigated acreage. This structure has been constructed with the approval of the sole downstream irrigator, who has agreed that limits protective of irrigation are no longer necessary in CBM permits.

3. Outfall Description—008 (Option 1B discharges)

The permittee has chosen option 1B of the coal bed methane permitting options for **outfall 008** only. Under Option 1B, the produced water is immediately discharged to a natural topographic depression or playa lake (class 3A water body). The permit establishes effluent limits for the end of pipe, which are protective of all designated uses of the class 3A receiving water defined in Chapter 1 of Wyoming Water Quality Rules and Regulations. This may include aquatic life other than fish, recreation, agriculture (livestock watering), wildlife, industry and scenic value.

The permittee has submitted information to demonstrate that all produced effluent from this facility will be contained in the natural playa. The water budget for this facility confirms that the playa will have sufficient capacity to contain all of the effluent from this facility as well as storm run-off from up to a 50-year / 24-hour event.

This permit prohibits discharge of effluent from the playa except in the event of a 50-year / 24-hour storm event (ref. *“Isopluvials of 50-yr / 24-hr precipitation map,” NOAA Atlas II, Volume II*) or greater. If a playa overtopping event occurs, verification of storm magnitude will be the responsibility of the permittee. Discharge from the playa resulting from a 50-year / 24-hour storm event or greater is limited by the permit to natural overtopping and shall not extend beyond a 48 hour period following commencement of natural overtopping. Additional release from the playa is not authorized. If any effluent discharged from this facility does overtop the playa lake, this permit requires the permittee to cease all discharge of effluent from the contributing wells until the effluent is no longer overtopping. Any effluent from this facility that overtops the playa, except as the direct result of the playa overtopping during a 50-year / 24-hour storm event or greater, will be considered a violation of this permit and must be corrected by the permittee immediately. This permit does not establish effluent limits that are protective of all designated uses associated with the downstream waters.

This permit establishes a monitoring station on LX Bar Creek prior to confluence with the Powder River. This station will function to monitor any effluent flows to the Powder River.

C. Effluent Limits and Monitoring Requirements

1. Outfalls 002, 003, 004, 006, 007, 009, and 010 (Option 2)

a. Effluent Limits: Permit effluent limits are based on federal and state regulations and are effective as of the date of issuance. The permit requires that the pH must remain within 6.5 and 9.0 standard units. An effluent limit for specific conductance (7500 micromhos/cm) is included to protect for stock and wildlife watering. This limit is based upon *Wyoming Water Quality Rules and Regulations, Chapter 1* and applies to discharge from any permitted outfall. In addition, the permit establishes a total barium limit of 1800 µg/l, a chloride limit of 150 mg/l, and a total arsenic limit of 8.4µg/l. These limits are based on chronic aquatic life standards for class 2AB waters which are intended to protect for the above listed designated uses and reflect the application of the antidegradation provisions required under *Chapter 1 of the Wyoming Water Quality Rules and Regulations*. The permit also establishes a dissolved iron effluent limit of 1000 µg/l to be met at the end of pipe. The dissolved iron effluent limits is based upon chronic aquatic life protection for class 3B waters, and considers the Tier 1 antidegradation provisions under *Chapter 1 of the Wyoming Water Quality Rules and Regulations*, as dissolved iron has been determined to be a non-persistent pollutant, and all the outfalls being authorized for discharge in this permit renewal are located more than one stream mile from confluence with the nearest class 2 water, in this case, the Powder River. This approach reflects current WYPDES permitting practice in regards to establishing dissolved iron effluent limits in CBM surface discharge permits.

b. Monitoring Requirements: Self monitoring results are to be reported twice-yearly and if no discharge occurs at the outfall then "no discharge" is to be reported. The permit also requires that an initial monitoring of the effluent be conducted within the first 60 days of discharge and the results submitted to WDEQ and the U.S. Environmental Protection Agency within 120 days of the commencement of discharge.

The permit requires sampling at a designated tributary water quality monitoring station located on LX Bar Creek, and at two mainstem water quality monitoring locations on the Powder River upstream and downstream of the confluence of LX Bar Creek and the Powder River. Water quality monitoring stations on the Powder River must be located in the main channel of the Powder River outside of the mixing zone of LX Bar Creek and the Powder River. Effluent samples at the designated water quality monitoring stations must be collected on a monthly basis and are to be reported semiannually. If flow occurs at the tributary water quality monitoring station designated in Table 1 of the following permit as “TRIB1” during a given monthly monitoring period, but this CBM facility did not contribute to that flow, the permittee will report “did not contribute” in the discharge monitoring reports for that monthly monitoring period. Under such circumstances, sampling is not required at the associated mainstem water quality monitoring stations, and it will be the responsibility of the permittee to demonstrate that the effluent from this facility did not contribute to the flow occurring at the tributary water quality monitoring station. If no flow at all occurs at the tributary water quality monitoring station designated

as “TRIB1” for an entire monthly monitoring period, then “no flow” is to be reported and samples need not be collected at the associated mainstem and tributary water quality monitoring stations for that monthly monitoring period.

At the designated water quality monitoring stations, monitoring will be required for calcium, magnesium, sodium, sodium adsorption ratio, and specific conductance. Information gathered from the water quality monitoring stations may result in modification of the permit to protect existing uses on the tributary and mainstem.

2. Effluent Limits and Monitoring Requirements – Outfall 004 (Option 2)

Powder River Assimilative Capacity for Total Dissolved Solids and Dissolved Sodium

In order to control total dissolved solids (TDS) and dissolved sodium loads into the Powder River in accordance with the Powder River Assimilative Capacity Policy, this permit establishes actual monthly load limits for TDS and dissolved sodium for outfall 004 only (see Part I.A.1.b of the following permit). The actual monthly load limits apply to the sum of all discharges from outfall 004 and vary by month according to background water quality concentrations within the Powder River as well as the Powder River assimilative capacity that has been allocated to the permittee. The total assimilative capacity allocated to the permittee is based on Powder River Basin lease holding information provided to the WDEQ by the permittee. The lease holding information is used to calculate the permittee’s net working interest. The net working interest calculated for the permittee is a function of total Powder River Basin coal leased by the permittee, as determined by the Wyoming Geological Survey, and ambient Powder River water quality concentrations determined by the WDEQ. The ambient Powder River water quality concentrations were calculated using United States Geological Survey (USGS) water quality data from USGS station number 06324500, Powder River at Moorhead, for the years 1990-2003.

The actual monthly load limits do not represent the total loads of TDS and dissolved sodium that may be contributed by outfall 004 each month; rather, the actual monthly load limits represent the portion of the total TDS and dissolved sodium loads contributed by outfall 004 that the permittee will be charged assimilative capacity for. The permittee is not charged assimilative capacity for the total monthly TDS and dissolved sodium loads produced by outfall 004; the permittee is only charged assimilative capacity for the portions of the total loads that are above what the loads would be should all effluent discharged from outfall 004 be treated to ambient Powder River concentrations for TDS and dissolved sodium. This approach is in accordance with the Powder River Assimilative Capacity Policy.

The permittee will be required to calculate the actual monthly load for outfall 004 for each month. The actual monthly load from outfall 004, for each month, must be less than or equal to the actual monthly load limits established in Part I.A.1.b of the permit. The permittee may adjust outfall flow as desired from outfall 004, as long as the actual monthly load limits can be met, and provided the permittee can meet all other effluent limits and requirements for outfall 004 established in Part I of the permit. The permittee must monitor outfall 004 continuously for flow and monthly for TDS and dissolved sodium, and must show that, for each month, at such flow rates and water quality, that they are achieving compliance with the total actual monthly load limits for this outfall. For months when no TDS assimilative capacity exists in the Powder River (August and September), the permittee has committed to ceasing discharge from outfall 004, in order to meet the actual load limits established in the permit.

Calculation of Actual Monthly Loads from Outfall 004: The dissolved sodium and TDS actual monthly loads for outfall 004 will be calculated using the equation below (see also Figure 1 for further explanation of equation):

Equation 1: $[(V \times C_{di}) - (V \times C_{pr})] \times 8.34 \text{ (lb/MG)/mg/l} = \text{Actual Monthly Load}$

where:

V = total volume, in **million gallons (MG)** discharged from the outfall for the given month. This permit requires that flow be monitored continuously at the outfall. The daily flow volumes (as represented from the average daily flow rates in MGD) from the outfall will be summed to determine the total monthly flow volume for the outfall.

C_{di} = concentration, in **mg/l**, of TDS or dissolved sodium in the discharge. The permittee will be required to monitor once monthly at the outfall for both TDS and dissolved sodium. **C_{di}** will represent the monthly sampled concentration of the appropriate constituent (TDS or dissolved sodium).

C_{pr} = ambient concentration of TDS or dissolved sodium of Powder River, in **mg/l**. Ambient concentration values have been pre-determined by the WDEQ using USGS data. For the months of August and September, when sufficient assimilative capacity does not exist within the Powder River to allow discharges from this facility at concentrations above ambient, the TDS ambient concentration is set at Montana standards (TDS = 1,524 mg/l, which is equivalent to EC 2,000 micromhos/cm). The permittee will choose the appropriate value for **C_{pr}** from the following table, also listed in Part I.A.1.b of the following permit:

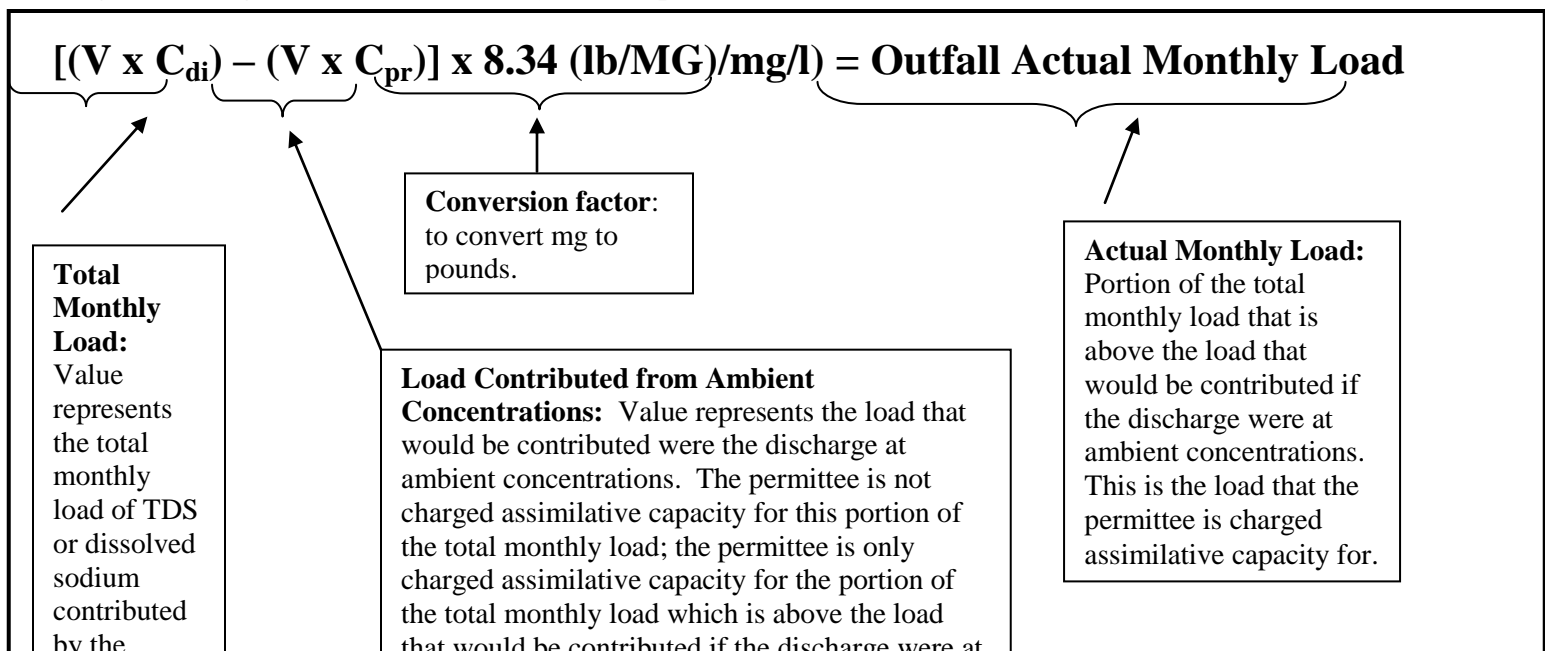
Month	C _{pr} Values	
	Total Dissolved Solids (mg/l)	Dissolved Sodium (mg/l)
January	1,345	212
February	1,444	194
March	1,359	186
April	1,161	166
May	956	202
June	860	160
July	1,369	180
August	1,524	250
September	1,524	237
October	1,388	224
November	1,446	213
December	1,482	211

8.34 (lb/MG)/(mg/l) is a conversion factor to convert mg to pounds in the equation.

Actual Monthly Load = the actual monthly load of TDS or dissolved sodium, in pounds, contributed by outfall 004 for a given month.

The permittee will be required to calculate and report the actual monthly loads of sodium and TDS contributed by outfall 004 for each month. The actual monthly loads from outfall 004 for each month must be less than or equal to the actual monthly load limits established in Part I.A.1.b of the following permit.

Figure 1. Diagram of Actual Monthly Load Equation



3. Effluent Limits and Monitoring Requirements— Outfall 008 (Option 1B discharges)

Permit effluent limits are based on federal and state regulations and are effective as of the date of issuance. The pH of the effluent must remain within 6.5 and 9.0 standard units. Effluent limits for specific conductance (7,500 micromhos/cm) and chlorides (2,000 mg/l) are included to protect for stock and wildlife watering. These limits are based upon Wyoming Water Quality Rules and Regulations, Chapter 2 and apply to discharge from any permitted outfall. In addition, the permit establishes a dissolved iron limit of 1000 µg/l and a total recoverable selenium limit of 5 µg/l. The total recoverable selenium limit is based on standards for class 3A waters which are intended to protect for the above listed designated uses and reflect the application of "tier 1" antidegradation protection. Tier 1 antidegradation protection is the basic level of protection which applies to all waters of the state, as described in the Wyoming Surface Water Quality Standards "Implementation Policies for Antidegradation." The dissolved iron effluent limit is based upon chronic aquatic life protection for class 3B waters, and considers the Tier 1 antidegradation provisions under *Chapter 1 of the Wyoming Water Quality Rules and Regulations*, as dissolved iron has been determined to be a non-persistent pollutant, and all the outfalls being authorized for discharge in this permit renewal are located more than one stream mile from confluence with the nearest class 2 water, in this case, the Powder River. This approach reflects current WYPDES permitting practice in regards to establishing dissolved iron effluent limits in CBM surface discharge permits. Based upon the results of the initial monitoring, this permit may be reopened and more stringent limits and/or monitoring and reporting required.

Results are to be reported twice-yearly and if no discharge occurs at a particular outfall for an entire sampling period, then "no discharge" is to be reported for that outfall during that period. The permit also requires that an initial monitoring of the effluent be conducted within the first 60 days of discharge and the results submitted to WDEQ and the U.S. Environmental Protection Agency within 120 days of the commencement of discharge.

In order to monitor potential accumulation of pollutants within the receiving playa, this permit (Part I.A.2.c) requires routine sampling, analysis, and reporting for the following constituents within the playa itself: total dissolved solids, specific conductance, chloride, dissolved fluoride, pH, sulfate, and total recoverable selenium. Sampling for these constituents within the playa is to occur a minimum of 50 feet from the location where the CBM effluent enters the playa. The playa monitoring location has been identified in Table 1 as "CU1". This monitoring requirement is intended to aid in the protection of the uses associated with the class 3A playa (aquatic life other than fish, recreation, livestock watering, wildlife, industry and scenic value). If this monitoring of the effluent within the playa reveals an exceedance of any applicable standards for class 3A waters, then this permit may be modified in order to protect all uses of the receiving water body.

The permit requires the permittee to install a staff gage within each option 1 containment unit at this facility. The staff gage must mark the elevation of the 50-year / 24-hour storm freeboard capacity within each containment unit. The permittee will be required to maintain effluent levels within each containment unit at or below that elevation. Should the volume of water within the reservoirs exceed the freeboard needed to contain runoff from a 50-year / 24-hour precipitation event, the permittee is required to cease discharge into these reservoirs until the volume of water within the reservoir drops back below the 50-year / 24-hour freeboard reserve.

Kathy Shreve
Water Quality Division
Department of Environmental Quality
Drafted: February 24, 2006

Dena Egenhoff—Renewal
Water Quality Division
Department of Environmental Quality
Drafted: February 4, 2008

Bob Alexander – Major Modification
Water Quality Division
Department of Environmental Quality
Drafted: November 12, 2008

AUTHORIZATION TO DISCHARGE UNDER THE
WYOMING POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, (hereinafter referred to as "the Act"), and the Wyoming Environmental Quality Act,

Pennaco Energy, Inc.,

is authorized to discharge from the wastewater treatment facilities serving the

LS Draw - LX Bar,

which is located in

the SWSE, Section 21, the SENW and SWSE, Section 27, the SWNW, NWNW, and SENW, Section 28, and the SENW, Section 29, Township 56 North, Range 75 West, Campbell County,


to receiving waters named

various named, on-channel reservoirs (class 3B) located on several unnamed, ephemeral tributaries (class 3B) of LX Bar Creek (class 3B), LS Draw proper (class 3B), Bath Draw proper (class 3B), Goodrich Draw proper (class 3B), Wineland Draw proper (class 3B), and a naturally closed topographic depression (a playa lake) (class 3A). One outfall (004) discharges directly (no reservoir containment) to LS Draw (class 3B). Except for the playa lake, the waterbodies listed above are all tributary to the Powder River (class 2ABWW), via LX Bar Creek (class 3B)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This major modification shall become effective on the date of signature by the Director of the Department of Environmental Quality. With the exception of items explicitly delineated in this major modification, all terms and conditions of permit WY0039055, including Parts II and III of the original permit, shall remain unchanged and in full force and effect.

This permit and the authorization to discharge shall expire June 30, 2011 at midnight.



John F. Wagner
Administrator - Water Quality

2/9/09

Date



John V. Corra
Director - Department of Environmental Quality

2/9/09

Date

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effective on the date of signature by the Director of the Department of Environmental Quality and lasting through June 30, 2011, the quality of effluent discharged by the permittee shall, at a minimum, meet the limitations set forth below. The permittee is authorized to discharge from outfall(s) serial numbers 002 – 004, 006 – 010.

1a. Discharges from outfalls 002, 003, 004, 006, 007, 009, and 010 shall be limited as specified below:

Effluent Limits

<u>Effluent Characteristic</u>	<u>Daily Maximum, Outfalls</u>
Chlorides , mg/l	150
pH , standard units	6.5 – 9.0
Specific Conductance , micromhos/cm	7500
Total Recoverable Arsenic , µg/l	8.4
Total Recoverable Barium , µg/l	1800
Dissolved Iron , µg/l	1000

- Note:
- 1) 'Dissolved' value for metals refers to the amount that will pass through a 0.45 µm membrane filter prior to acidification to 1.5-2.0 with Nitric Acid.
 - 2) 'Total' value for metals refers to the total recoverable amount of that metal in the water column.

The permittee is required to contain all effluent from outfalls **002, 003, 006, 007, 009, and 010** only in a series of on-channel reservoirs at this facility, unless prior written authorization is granted by the WYPDES program for a reservoir release, in association with use of assimilative capacity credits for the Powder River Basin. In the event that such an authorization for release is granted for this facility, the authorization letter will specify the release volume, duration and individual reservoir(s) covered. In the absence of such written authorization for release, the following containment requirements will apply at the reservoirs: the permittee will be required to contain all produced water within a series of on-channel reservoirs during “dry” operating conditions. The permittee is authorized to release discharge from upstream on-channel reservoirs only. Water released from the upstream reservoirs will be allowed to cascade down to the lowermost on-channel reservoirs, identified as follows: “Loman”, “Bath”, and “Wineland”. This permit prohibits discharge of effluent from the lowermost reservoirs except during periods of time in which natural precipitation causes the lowermost reservoirs to overtop and spill. Intentional or draw-down type releases from the lowermost reservoirs will constitute a violation of this permit. Discharge from the reservoirs is limited by the permit to natural overtopping and shall not extend beyond a 48 hour period following commencement of natural overtopping. It is

the responsibility of the permittee to adequately demonstrate the circumstances in which reservoir discharges occurred, if requested to do so by the WYPDES Program.

1b. For outfall 004:

The permittee must discharge effluent from outfall 004 at concentrations for total dissolved solids and dissolved sodium and at such flow rates so as not to exceed the actual monthly load limits established below:

Actual Monthly Load Limits

<u>Effluent Characteristic</u>	<u>Actual Monthly Load (lb)from outfall 004</u>
Dissolved Sodium, lb/mo. (January)	840
Dissolved Sodium, lb/mo. (February)	807
Dissolved Sodium, lb/mo. (March)	918
Dissolved Sodium, lb/mo. (April)	946
Dissolved Sodium, lb/mo. (May)	870
Dissolved Sodium, lb/mo. (June)	964
Dissolved Sodium, lb/mo. (July)	936
Dissolved Sodium, lb/mo. (August)	0
Dissolved Sodium, lb/mo. (September)	0
Dissolved Sodium, lb/mo. (October)	804
Dissolved Sodium, lb/mo. (November)	810
Dissolved Sodium, lb/mo. (December)	843
Total Dissolved Solids, lb/mo. (January)	491
Total Dissolved Solids, lb/mo. (February)	175
Total Dissolved Solids, lb/mo. (March)	448
Total Dissolved Solids, lb/mo. (April)	1008
Total Dissolved Solids, lb/mo. (May)	1659
Total Dissolved Solids, lb/mo. (June)	1882
Total Dissolved Solids, lb/mo. (July)	444
Total Dissolved Solids, lb/mo. (August)	0
Total Dissolved Solids, lb/mo. (September)	0
Total Dissolved Solids, lb/mo. (October)	361
Total Dissolved Solids, lb/mo. (November)	181
Total Dissolved Solids, lb/mo. (December)	80

1c. Outfall 008 (Option 1B discharge)

Effluent Limits

<u>Effluent Characteristic</u>	<u>Daily Maximum</u>
Dissolved Iron, µg/l	1000
pH, standard units	6.5 – 9.0
Specific Conductance, micromhos/cm	7500
Total Recoverable Selenium, µg/l	5
Dissolved Chlorides, mg/l	2000

- Note:
- 1) 'Dissolved' value for metals refers to the amount that will pass through a 0.45 µm membrane filter prior to acidification to 1.5-2.0 with Nitric Acid.
 - 2) 'Total' value for metals refers to the total recoverable amount of that metal in the water column.

This permit prohibits discharge of effluent from the playa except in the event of a 50-year / 24-hour storm event (*ref.* "Isopluvials of 50-yr / 24-hr precipitation map," NOAA Atlas II, Volume II) or greater. If a playa overtopping event occurs, verification of storm magnitude will be the responsibility of the permittee. Discharge from the playa resulting from a 50-year / 24-hour storm event or greater is limited by the permit to natural overtopping and shall not extend beyond a 48 hour period following commencement of natural overtopping. Additional release from the playa is not authorized. If any effluent discharged from this facility does overtop the playa lake, this permit requires the permittee to cease all discharge of effluent from the contributing wells until the effluent is no longer overtopping. Any effluent from this facility that overtops the playa, except as the direct result of the playa overtopping during a 50-year / 24-hour storm event or greater, will be considered a violation of this permit and must be corrected by the permittee immediately.

The permit requires the permittee to install a staff gage within each option 1 containment unit at this facility. The staff gage must mark the elevation of the 50-year / 24-hour storm freeboard capacity within each containment unit. The permittee will be required to maintain effluent levels within each containment unit at or below that elevation. Should the volume of water within the reservoirs exceed the freeboard needed to contain runoff from a 50-year / 24-hour precipitation event, the permittee is required to cease discharge into these reservoirs until the volume of water within the reservoir drops back below the 50-year / 24-hour freeboard reserve.

1d. Additional Permit Requirements Applicable to All Permitted Outfalls (002-004, 006-010):

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units in any single grab sample.

The produced water will originate from the Pawnee, Wall, Canyon, and/or Cook coal seams. The permittee is authorized to discharge from all wells to all permitted outfalls, provided all effluent limits and other permit conditions can be met.

There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall the discharge cause formation of a visible sheen or visible hydrocarbon deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring, or damage to stream banks, stream beds, ditches, or other waters of the state at the point of discharge. In addition, there shall be no deposition of substances in quantities which could result in significant aesthetic degradation, or degradation of habitat for aquatic life, plant life or wildlife; or which could adversely affect public water supplies or those intended for agricultural or industrial use.

2. Discharges shall be monitored by the permittee as specified below:

a. Monitoring of the initial discharge

Note: The initial monitoring requirement outlined below will not apply to outfalls already sampled for these parameters under previous permit coverage.

Within 60 days of commencement of discharge following issuance of this permit renewal, a sample shall be collected from each outfall and analyzed for the constituents specified below, at the required detection limits. Within 120 days of commencement of discharge, a summary report on the produced water must be submitted to the Wyoming Department of Environmental Quality and the U.S. EPA Region 8 at the addresses listed below. This summary report must include the results and detection limits for each of the constituents listed below. In addition, the report must include written notification of the established location of the discharge point (refer to Part I.B.11). This notification must include a confirmation that the location of the established discharge point(s) is within 1,510 feet of the location of the identified discharge point(s), is within the same drainage, and discharges to the same landowner's property as identified on the original application form. The legal description and location in decimal degrees of the established discharge point(s) must also be provided. After receiving the monitoring results for the initial discharge, the effluent limits and monitoring requirements established in this permit may be modified.

<u>Parameter*</u> (See notes following the table on chemical states)	<u>Required Detection Limits and Required Units</u>
Alkalinity, Total	1 mg/l as CaCO ₃
Aluminum, Dissolved	50 µg/l
Arsenic, Total Recoverable	1 µg/l
Barium, Total Recoverable	100 µg/l
Bicarbonate	10 mg/l
Cadmium, Dissolved	5 µg/l
Calcium, Dissolved	50 µg/l, report as mg/l
Chlorides	5 mg/l
Copper, Dissolved	10 µg/l
Dissolved Solids, Total	5 mg/l
Fluoride, Dissolved	100 µg/l
Hardness, Total	10 mg/l as CaCO ₃

<u>Parameter*</u> (See notes following the table on chemical states)	<u>Required Detection Limits and Required Units</u>
Iron, Dissolved	50 µg/l
Lead, Dissolved	2 µg/l
Magnesium, Dissolved	100 µg/l, report as mg/l
Mercury, Dissolved	1 µg/l
pH	to 0.1 pH unit
Radium 226, Total Recoverable	0.2 pCi/l
Selenium, Total Recoverable	5 µg/l
Sodium Adsorption Ratio	Calculated as unadjusted ratio
Sodium, Dissolved	100 µg/l, report as mg/l
Specific Conductance	5 micromhos/cm
Sulfates	10 mg/l
Zinc, Dissolved	50 µg/l

TOTAL: Value is expressed in terms of total recoverable metal in the water column.

NOTE: Except for aquatic life values for metals and where otherwise indicated, the values given refer to the total recoverable (dissolved plus suspended) amount for each substance. For the aquatic life values for metals, the values refer to the dissolved amount.

DISSOLVED: Value is based on the dissolved amount which is the amount that will pass through a 0.45 µm membrane filter prior to acidification to pH 1.5 - 2.0 with nitric acid.

Initial monitoring reports are to be sent to the following addresses:

Planning and Targeting Program, 8ENF-PT
Office of Enforcement, Compliance, and Environmental Justice
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

and

Wyoming Department of Environmental Quality
Water Quality Division
Herschler Building, 4 West
122 West 25th Street
Cheyenne, WY 82002

b. Routine monitoring End of Pipe – (002, 003, 006, 007, 009, and 010)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. The first routine monitoring for the time frame during which the monitoring of initial discharge occurs will, at a minimum, consist of flow measurements for the duration of the six-month monitoring time frame. Monitoring will be based on semi-annual time frames, from January through June, and from July through December.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Bicarbonate (mg/l)	Annually	Grab
Dissolved calcium (mg/l)	Monthly	Grab
Chloride (mg/l)	Annually	Grab
Dissolved Iron (µg/l)	Annually	Grab
Dissolved Magnesium (mg/l)	Monthly	Grab
pH (standard units)	Once Every Six Months	Grab
Dissolved Sodium (mg/l)	Monthly	Grab
Sodium Adsorption Ratio (unadjusted)	Monthly	Calculated
Specific Conductance (micromhos/cm)	Monthly	Grab
Total Alkalinity (mg/l)	Annually	Grab
Total Recoverable Arsenic (µg/l)	Quarterly	Grab
Total Recoverable Barium (µg/l)	Annually	Grab
Total Flow - (MGD)	Monthly	Continuous
Total Dissolved Solids (mg/l)	Monthly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the outfall of the final treatment unit which is located out of the natural drainage and prior to admixture with diluent waters.

c. Routine Monitoring End of Pipe (004)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected and reported at the indicated frequencies. The first routine monitoring for the time frame during which the monitoring of initial discharge occurs will, at a minimum, consist of flow measurements for the duration of the appropriate monitoring time frame.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>	<u>Report Frequency</u>
Bicarbonate (mg/l)	Annually	Grab	Annually
Dissolved Calcium (mg/l)	Monthly	Grab	Semi-annually
Chloride (mg/l)	Annually	Grab	Annually
Dissolved Iron (µg/l)	Annually	Grab	Annually

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>	<u>Report Frequency</u>
Dissolved Magnesium (mg/l)	Monthly	Grab	Semi-annually
pH (standard units)	Once Every Six Months	Grab	Semi-annually
Dissolved Sodium (mg/l)	Monthly	Grab	Monthly
Sodium Adsorption Ratio (unadjusted)	Monthly	Calculated	Semi-annually
Specific Conductance (micromhos/cm)	Monthly	Grab	Semi-annually
Total Alkalinity (mg/l)	Annually	Grab	Annually
Total Recoverable Arsenic (µg/l)	Annually	Grab	Annually
Total Recoverable Barium (µg/l)	Annually	Grab	Annually
Total Flow – (MGD)*	Monthly	Continuous	Monthly
Total Dissolved Solids (mg/l)	Monthly	Grab	Monthly

*Total flow at the outfall will be measured continuously and the data will be compiled by the permittee in order to report the following values on a monthly basis:

- a. a **monthly average value** (average of all flow readings for a given month),
- b. a **daily maximum value** (highest single flow reading for that month).
- c. the **total monthly flow volume**, in million gallons (MG) for the outfall, calculated using the following method:
 1. The permittee will determine the daily flow volume, in million gallons (MG), by calculating the average daily flow rate in MGD. This value will be used to represent the volume of effluent discharged from each outfall for that day.
 2. The average daily flow volume for each day of the month will be summed for each outfall, to calculate the total monthly flow volume for each outfall.
- d. **Routine Monitoring End of Pipe—Total Actual Load Limit Monitoring (004 only)**

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected and reported at the indicated frequencies.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>	<u>Report Frequency</u>
Total Dissolved Solids actual load (lb/mo.), 004	Monthly	Calculated	Monthly
Dissolved Sodium actual load (lb/mo.), 004	Monthly	Calculated	Monthly

*The permittee will calculate the actual monthly loads from 004 for TDS and dissolved sodium using the following formula:

$$[(V \times C_{di}) - (V \times C_{pr})] \times 8.34 \text{ (lb/MG)/mg/l} = \text{Outfall Actual Monthly Load (lb)}$$

where:

V = total volume, in million gallons (MG) discharged from the outfall for the given month. This permit requires that flow be monitored continuously at the outfall. The daily flow volumes (as represented from the average daily flow rates in MGD) from the outfall will be summed to determine the total monthly flow volume for the outfall.

C_{di} = concentration, in mg/l, of TDS or dissolved sodium in the discharge. The permittee is required to monitor once monthly at each outfall for the given parameter. **C_{di}** will represent this monthly sampled concentration.

C_{pr} = ambient concentration of TDS or dissolved sodium of Powder River, in mg/l. The permittee will choose the appropriate value, based on the month and constituent, for **C_{pr}** from the following table:

Month	C _{pr} Values	
	Total Dissolved Solids (mg/l)	Dissolved Sodium (mg/l)
January	1,345	212
February	1,444	194
March	1,359	186
April	1,161	166
May	956	202
June	860	160
July	1,369	180
August	1,524	250
September	1,524	237
October	1,388	224
November	1,446	213
December	1,482	211

Actual monthly loads from 004 must be equal to or less than the actual monthly load limits established in Part I.A.1.b of the permit; actual monthly loads from outfall 004 that are greater than the actual monthly load limits established in Part I.A.1.b of the permit will constitute a violation of this permit.

e. **Routine monitoring End of Pipe (008)**

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. The first routine monitoring for the time frame during which the monitoring of initial discharge occurs will, at a minimum, consist of flow measurements for the duration of the six-month monitoring time frame. Monitoring will be based on semi-annual time frames, from January through June, and from July through December.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Chloride (mg/l)	Annually	Grab
Dissolved Iron (µg/l)	Annually	Grab
pH (standard units)	Once Every Six Months	Grab
Specific Conductance (µmhos/cm)	Annually	Grab
Total Recoverable Selenium (µg/l)	Annually	Grab
Total Flow - (MGD)	Monthly	Continuous
Total Dissolved Solids (mg/l)	Annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the outfall of the final treatment unit which is located out of the natural drainage and prior to admixture with diluent waters.

f. Routine Monitoring Within Playa (CU1)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. Monitoring and reporting will be based on an annual time frame.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Total Dissolved Solids (mg/l)	Annually	Grab
Specific Conductance (µmhos/cm)	Annually	Grab
Chlorides (mg/l)	Annually	Grab
Total Recoverable Selenium (µg/l)	Annually	Grab
Sulfate (mg/l)	Annually	Grab
Dissolved Fluoride (µg/l)	Annually	Grab
pH (standard units)	Annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): designated playa monitoring station located as described in Table 1. Monitoring location is to be located a minimum of 50 feet away from the point where CBM effluent enters the playa. Results are to be reported annually.

g. Water Quality Monitoring Station (TRIB1, UPR, DPR)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. Monitoring will be based on monthly time frames, and reported semiannually.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Dissolved Calcium (mg/l)	Monthly	Grab
Dissolved Magnesium (mg/l)	Monthly	Grab
Dissolved Sodium (mg/l)	Monthly	Grab
Sodium Adsorption Ratio (calculated as unadjusted ratio)	Monthly	Calculated
Specific Conductance (micromhos/cm)	Monthly	Grab
Flow (MGD)	Monthly	Instantaneous

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: TRIB1, UPR, DPR listed in Table 1, Part I.B. 13 of the permit below. Effluent samples at the designated water quality monitoring stations must be collected on a monthly basis and are to be reported semiannually. If flow occurs at the tributary water quality monitoring station (TRIB1, location listed in Table 1 of the permit) during a given monthly monitoring period, but this CBM facility did not contribute to that flow, the permittee will report “did not contribute” in the discharge monitoring reports for that monthly monitoring period. Under such circumstances, sampling is not required at the associated mainstem water quality monitoring stations, and it will be the responsibility of the permittee to demonstrate that the effluent from this facility did not contribute to the flow occurring at the tributary water quality monitoring station. If no flow at all occurs at the tributary water quality monitoring station designated as “TRIB1” for an entire monthly monitoring period, then “no flow” is to be reported and samples need not be collected at the associated mainstem and tributary water quality monitoring stations for that monthly monitoring period.

At the designated water quality monitoring stations, monitoring will be required for calcium, magnesium, sodium, sodium adsorption ratio and specific conductance. Information gathered from the water quality monitoring stations may result in modification of the permit to protect existing uses on the tributary and mainstem.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by the permit issuing authority.

2. Reporting

Results of initial monitoring, including the date the discharge began, shall be summarized on a Monitoring Report Form for Monitoring of Initial Discharge and submitted to the state water pollution control agency at the address below postmarked no later than 120 days after the commencement of discharge.

Results of routine end of pipe and water quality station monitoring shall be summarized and reported on a Discharge Monitoring Report Form (DMR) at the required frequencies. If the discharge is intermittent, the date the discharge began and ended must be included. The information submitted on the first DMR shall contain a summary of flow measurements and any additional monitoring conducted subsequent to the submittal of the initial monitoring report. If required, whole effluent toxicity testing (biomonitoring) results must be reported on the most recent version of EPA Region VIII's Guidance for Whole Effluent Reporting. Monitoring reports must be submitted to the state water pollution control agency at the following address postmarked no later than the 15th day of the second month following the completed reporting period. The first report following issuance of this permit is due on August 15th, 2009.

Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements contained in Part II.A.11.

Wyoming Department of Environmental Quality
Water Quality Division
Herschler Building, 4 West
122 West 25th Street
Cheyenne, WY 82002
Telephone: (307) 777-7781

If no discharge occurs during the reporting period, "no discharge" shall be reported. If discharge is intermittent during the reporting period, sampling shall be done while the facility is discharging.

3. Definitions

- a. The "monthly average" shall be determined by calculating the arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during a calendar month.

- b. The "weekly average" shall be determined by calculating the arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during any week.
- c. The "daily maximum" shall be determined by the analysis of a single grab or composite sample.
- d. "MGD", for monitoring requirements, is defined as million gallons per day.
- e. "Net" value, if noted under Effluent Characteristics, is calculated on the basis of the net increase of the individual parameter over the quantity of that same parameter present in the intake water measured prior to any contamination or use in the process of this facility. Any contaminants contained in any intake water obtained from underground wells shall not be adjusted for as described above and, therefore, shall be considered as process input to the final effluent. Limitations in which "net" is not noted are calculated on the basis of gross measurements of each parameter in the discharge, irrespective of the quantity of those parameters in the intake waters.
- f. A "composite" sample, for monitoring requirements, is defined as a minimum of four grab samples collected at equally spaced two hour intervals and proportioned according to flow.
- g. An "instantaneous" measurement for monitoring requirements is defined as a single reading, measurement, or observation.
- h. A "pollutant" is any substance or substances which, if allowed to enter surface waters of the state, causes or threatens to cause pollution as defined in the Wyoming Environmental Quality Act, Section 35-11-103.
- i. "Total Flow" is the total volume of water discharged, measured on a continuous basis and reported as a total volume for each month during a reporting period. The accuracy of flow measurement must comply with Part III.A.1.

4. Test Procedures

Test procedures for the analysis of pollutants, collection of samples, sample containers, sample preservation, and holding times, shall conform to regulations published pursuant to 40 CFR, Part 136, unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling;

- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses and collected the samples;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine the results.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated.

7. Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the administrator at any time. Data collected on site, copies of Discharge Monitoring Reports and a copy of this WYPDES permit must be maintained on site during the duration of activity at the permitted location.

8. Penalties for Tampering

The Act provides that any person who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or both.

9. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

10. Facility Identification

All facilities discharging produced water shall be clearly identified with an all-weather sign posted at each outfall, and at the outlet of each receiving reservoir listed in Table 1 below. This sign shall, at a minimum, convey the following information:

- a. The name of the company, corporation, person(s) who holds the discharge permit, and the WYPDES permit number;
- b. The contact name and phone number of the person responsible for the records associated with the permit;
- c. The name of the facility (as identified in this WYPDES permit). In addition, all outfall signs will include the outfall number. Reservoir signs are separate from the outfall signs, and are to be located at the outlet of the reservoir. Reservoir signs must include the information listed in items a and b above, in addition to the reservoir name, as identified in Table 1 below.

11. Identification and Establishment of Discharge Points

According to 40 CFR 122.21(k)(1), the permittee shall identify the expected location of each discharge point on the appropriate WYPDES permit application form. The location of the discharge point must be identified to within an accuracy of 15 seconds. This equates to a distance of 1,510 feet.

Public notice is not required if the location of the established discharge point is within 1,510 feet of the location of the discharge point originally identified on the permit application. In addition, the discharge must be within the same drainage and must discharge to the same landowner's property as identified on the original application form. If the three previously stated requirements are not satisfied, modification of the discharge point location(s) constitutes a major modification of the permit as defined in Part I.B.12. The permittee shall provide written notification of the establishment of each discharge point in accordance with Part I.A.2.a above.

12. Location of Discharge Points, Irrigation Monitoring Points and water quality monitoring stations

As of the date of permit issuance, authorized points of Discharge Points, Irrigation Monitoring Points and water quality monitoring stations were as follows:

Table 1: WY0039055-LS Draw-LX Bar

Out-fall	Qtr/Qtr	SEC-TION	TWP (N)	RNG (W)	LATITUDE	LONGITUDE	Drainage / Description	Groundwater approval required prior to Discharge?	Reservoir Bond to WDEQ Required prior to Discharge?
*002	SWNW	28	56	75	44.802510	-105.902370	Powder River (2ABWW) via LX Bar Creek (3B) via LS Draw (3B) via on-channel reservoirs "CMS LS Draw Project Sec. 28A" , "CMS LS Draw Project 28B" and "Loman" (3B)	No	Yes
003	NWNW	28	56	75	44.808774	-105.903171	Powder River (2ABWW) via LX Bar Creek (3B) via Bath Draw (3B) via on-channel reservoirs "CMS LS Draw Project Sec. 21A" , "CMS LS Draw Project 21B" and "Bath" (3B)	No	Yes for CMS LS Draw Project 21B, only
*004	SWSE	21	56	75	44.812590	-105.890202	Powder River (2ABWW) via LX Bar Creek (3B) via LS Draw (3B) via unnamed ephemeral tributary (3B)	N/A	N/A
*006	SENW	28	56	75	44.802150	-105.894382	Powder River (2ABWW) via LX Bar Creek (3B) via LS Draw (3B) via unnamed ephemeral tributary (3B) via on-channel reservoir "Loman" (3B)	No	No
007	SENW	29	56	75	44.804633	-105.916726	Powder River (2ABWW) via LX Bar Creek (3B) via LS Draw (3B) via Goodrich Draw (3B) via on-channel reservoir "Goodrich" (3B)	No	Yes
008	SENW	27	56	75	44.803928	-105.877182	Powder River (2ABWW) via LX Bar Creek (3B) via LS Draw (3B) via topographically isolated natural playa "Buffalo Wallow" (3B)	No	No
009	SWSE	27	56	75	44.798450	-105.869290	Powder River (2ABWW) via LX Bar Creek (3B) via Reservoir Creek (3B) via Wineland Draw (3B) via on-channel reservoir "Wineland" (3B)	No	No
010	NWNW	28	56	75	44.808532	-105.901951	Powder River (2ABWW) via LX Bar Creek (3B) via Bath Draw (3B) via on-channel reservoirs "CMS LS Draw Project Sec. 21A" , "CMS LS Draw Project 21B" and "Bath" (3B)	No	Yes for CMS LS Draw Project 21B, only
DPR	SWSE	12	57	76	44.933964	-105.949359	Downstream Powder River monitoring station (below LX Bar)	N/A	N/A
TRIB1	NWSE	14	57	76	44.922193	-105.966119	Tributary monitoring station LX Bar	N/A	N/A
UPR	SWNW	16	57	76	44.926801	-106.011640	Upstream Powder River monitoring station (above LX Bar)	N/A	N/A
CU1	SENW	27	56	75	44.803928	-105.877182	Containment unit monitoring station serving outfall 008	N/A	N/A

*Note: Asterisk denotes outfalls for which WDEQ has field-verified the latitude and longitude locations. These are considered to be the most accurate location data available for these outfalls, and will supersede latitude and longitude values presented in the application

Requests for modification of the above list will be processed as follows. If the requested modification satisfies the definition of a minor permit modification as defined in 40 CFR 122.63 modifications will not be required to be advertised in a public notice. A minor modification constitutes a correction of a typographical error, increase in monitoring and/or reporting, revision to an interim compliance schedule date, change in ownership, revision of a construction schedule for a new source discharger, deletion of permitted outfalls, and/or the incorporation of an approved local pretreatment program.

A request for a minor modification must be initiated by the permittee by completing the form titled Wyoming Pollutant Discharge Elimination System Permit Modification Application For Coal Bed Methane. Incomplete application forms will be returned to the applicant.

The outfalls listed in Table 1 (located at the end of Part I) may be moved from the established location without submittal of a permit modification application provided all of the following conditions are satisfied:

1. The new outfall location is within 2640 feet of the established outfall location.
2. The new outfall location is within the same drainage or immediate permitted receiving waterbody.
3. There is no change in the affected landowners.
4. Notification of the change in outfall location must be provided to the WYPDES Permits Section on a form provided by the WQD Administrator within 10 days of the outfall location change. The form must be provided in duplicate and legible maps showing the previous and new outfall location must be attached to the form.

Moving an outfall location without satisfying the four above listed conditions will be considered a violation of this permit and subject to full enforcement authority of the WQD.

An outfall relocation as described above will not be allowed if the new outfall location is less than one mile from the confluence of a Class 2 waterbody and the dissolved iron limits established in the permit for the outfall are based upon Class 3 standards.

C. RESERVOIR / IMPOUNDMENT REQUIREMENTS

1. Groundwater Monitoring Beneath Impoundments:

Table 1 of the permit above identifies which outfalls (if any) are designed to discharge into impoundments that are subject to groundwater monitoring requirements established in the latest version of the Water Quality Division guideline "*Compliance Monitoring for Groundwater Protection Beneath Unlined Coalbed Methane Produced Water Impoundments.*" These specified outfalls are not authorized to discharge until a written groundwater compliance approval has been granted by the Groundwater Pollution Control Program of the Water Quality Division. A groundwater compliance approval will consist of either a final approved groundwater compliance monitoring plan, or written authorization for an exemption thereof. Once an impoundment has been granted a written groundwater compliance approval, the contributing outfall(s) to that reservoir may commence discharge.

2. Reclamation Performance Bonds for On-Channel Reservoirs:

Table 1 of the permit above also identifies which outfalls (if any) are designed to discharge into impoundments that are subject to WDEQ bonding requirements, as set forth in the latest version of the Water Quality Division guideline "*Implementation Guidance for Reclamation and Bonding of On-Channel Reservoirs That Store Coalbed Natural Gas Produced Water.*" These specified outfalls are not authorized to discharge until the associated reservoir reclamation bond is approved by WDEQ. Once the reservoir reclamation bond is approved by WDEQ, the contributing outfall(s) to that reservoir may commence discharge.

Any discharge into an above-listed impoundment which has not been secured by the required WDEQ-approved bond, or which has not been granted the required groundwater compliance approval, will constitute a violation of this permit, and may result in enforcement action from the Water Quality Division.